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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/070,617

03/08/2002

Emiko Sakuma

M1909.0005/P005

9167

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01/25/2006

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EXAMINER

MEEK, JACOB M

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/070,617		SAKUMA, EMIKO	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jacob Meek		2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 - 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 13 and 14 is/are rejected.
- 7) ☒ Claim(s) 3 - 12, 15, 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see page 4, filed November 7, 2005, with respect to the rejection(s) of claim(s) 1, 2, 13 and 14 under 35 USC 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of applicant's admitted prior art, Secord (US-6,097,712) and McDonough (US-6,625,199).

### ***Drawings***

2. Figure 9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of Secord et al (US-6,097,712).

With regard to claim 1, applicant's admitted prior art discloses a 1<sup>st</sup> multiplier (figure 9, 15n with  $x(t)$ ,  $c(t)$  inputs), a 2<sup>nd</sup> multiplier (figure 9, 15n with  $r_n(t)$ , and 1<sup>st</sup> multiplier output as inputs), an integrator (figure 9, 12'), fixed data sequential output units for outputting fixed data (see figure 9,  $x(t)$ ), and correlation value output sequential output units (see page 3, 1<sup>st</sup> paragraph); and a path-corresponding maximum value detector for detecting a maximum value of correlation values (see figure 9, 14'). Applicant's admitted prior art differs in structure from applicant's claimed arrangement in 1<sup>st</sup> and 2<sup>nd</sup> integrators. Secord discloses a CDMA receiver comprising a 1<sup>st</sup> multiplier (see figure 5, 52 and column 5, lines 23 – 27), a 1<sup>st</sup> integrator for integrating a signal output from 1<sup>st</sup> multiplier (see figure 5, 58); fixed data sequential output units (see figure 5,  $c(i,k)$  and  $W(i,k)$ ); a 2<sup>nd</sup> multiplier for multiplying integrator output and fixed data (see figure 5, 60). Secord also shows additional configurations with integrators positioned between multipliers (see figures 6 and 7). As applicant's admitted prior art and Secord disclose variations of the components and functions, it appears that the components and location do not appear to require a fixed configuration and therefore the rearrangement of known components is considered to be obvious to one of ordinary skill in the art.

With regard to claim 13, the steps claimed as method are a restatement of the functions of the apparatus of claim 1, and therefore is similarly rejected as claim 1.

4. Claims 2, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art in view of McDonough et al (US-6,097,712).

With regard to claim 2, applicant's admitted prior art is silent with respect to selection of fixed sequential data output unit operating with a selector. McDonough discloses a device with fixed data output units (see figure 4B, 406, 408) and a fixed data selector for outputting fixed data (see figure 4B, 430). It would have been obvious to one of ordinary skill in the art at the time of invention to utilize McDonough's PN generator with existing art to produce a simplified system ('199, column 26, line 64 – column 27, line 5) with increased flexibility (column 26, lines 4 – 18).

With regard to claim 14, the steps claimed as method are a restatement of the functions of the apparatus of claim 2, and therefore is similarly rejected as claim 2.

#### ***Other Cited Prior Art***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hasegawa (US-5,432,814) discloses a spread spectrum communication system with selectable PN generators.

Sugita (US-5,835,488) discloses PN generation circuits for use in CDMA applications featuring a selection circuit.

Honda (US-5,970,084) discloses CDMA receiver with selectable PN generators, integrators, and multipliers that appears to be closely related to applicant's claimed invention.

Takai (US-5,978,412) discloses a CDMA receiver with 1<sup>st</sup> and 2<sup>nd</sup> multipliers for despread signals.

Burns et al (US-6,470,000 and US-6,611,512) disclose shared correlator circuits for use in CDMA applications that appear closely related to applicant's invention.

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### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob Meek whose telephone number is (571)272-3013. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571)272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMM  
1/20/06



TEMESGHEN GHEBRETINSAE  
PRIMARY EXAMINER  
1/23/06